



DOCKET NO.: 4879

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE MATTER OF THE APPLICATION FOR PATENT

OF: Johannes SCHWEIGER

| ART UNIT: 3644

SERIAL NO.: 10/543,037

| CONF. NO.: 9187

FILED: July 21, 2005

| EXAMINER: V. XAVIER

FOR: FLOW-MECHANICALLY EFFECTIVE SURFACE FOR MINIMIZING INDUCED
RESISTANCE

COMMISSIONER FOR PATENTS
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450

July 14, 2008

INFORMATION DISCLOSURE STATEMENT WITH CERTIFICATE OF MAILING

Dear Sir:

- 1) Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98 applicants enclose a **Second** Form PTO-1449, copies of references AW to AY cited thereon, and English abstracts as indicated on Form PTO-1449.
- 2) In compliance with 37 C.F.R. §1.97(c), this Information Disclosure Statement is being filed before the mailing date of a Final Office Action or Notice of Allowance, and is accompanied by the required fee of \$180.00 (enclosed Credit Card Payment Form PTO-2038). Any fee deficiency or additional fee may be charged to Deposit Account 50-0507.

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- 3) References AF to AV and AY are in English. References AW and AX are accompanied by English abstracts.
- 4) Reference AW (German Patent DE 102 02 021) discloses a control surface arrangement with a control surface especially for aircraft, as well as an actuating arrangement for actuating or adjusting the same. The control surface is connected to a main body via a pivot axis that is located in the flow direction behind the resulting center of force of the fluid dynamic force acting on the control surface. The movable control surface is also connected via a spring element to the main body, and the torsional stiffness of this spring element can be adjusted, controlled or regulated. A deflection of such a control surface can deform the main surface as a result of the arising dynamic forces. Due to the spring element, the effectiveness of the lift force can be adapted to the varying flight conditions during a flight of the aircraft. The adjustment of the variable stiffness can be achieved by a control or regulating arrangement that uses a table or a function to allocate nominal values to actual values.
- 5) Reference AX (German Patent Laying-Open Document DE 103 13 290) discloses a fluid dynamically effective control surface especially for a lifting wing of an aircraft. The arrangement includes an outer control surface pivotally connected to an outer end of an inner wing or main wing. The outer control surface is rotatable or pivotable in an elastically yielding manner against

a prescribed counter force, to achieve a load reduction of impermissibly high fluid dynamic loads acting on the wing. This is achieved especially by providing a torsion spring on the pivot axis of the control surface. An elliptical lift distribution is recognized as corresponding to a minimized induced drag.

- 6) The Examiner is requested to consider all references of record, return an initialed copy of the enclosed Form PTO-1449, and ensure that all references of record are printed on any patent issuing from this application.

Respectfully submitted,

WFF:he/4879
Enclosures:
postcard,
Form PTO-1449
3 references
2 Engl. Abstracts

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CERTIFICATE OF MAILING:

I hereby certify that this correspondence with all indicated enclosures is being deposited with the U. S. Postal Service with sufficient postage as first-class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

Walter F. Fasse 7/14/08
Name: Walter F. Fasse - Date: July 14, 2008